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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,060	08/04/2003	Claude Galand	112025-0348C1	5533

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EXAMINER	
CHERY, DADY	

ART UNIT	PAPER NUMBER
2616	

MAIL DATE	DELIVERY MODE
10/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/634,060	GALAND ET AL.	
	Examiner	Art Unit	
	Dady Chery	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-34 and 41 -44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1-34 and 41 -44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

This communication is responsive to the amendment filed on 08/31/2007

Response to Arguments

Applicant's arguments with respect to claims 1-34 have been considered but are moot in view of the new ground(s) of rejection necessitated by the amendment.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1,2, 4,6,7,9,11,13,17, 19 and 41 -44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Azuma in the view of Vaman et al. (US Patent 6,011,780, hereinafter Vaman).

Regarding claims 1 and 6, Azuma discloses *a method for operating a node* (Fig. 2A, node A) *in a computer network, the node connected to other nodes* (B, C) by links, comprising:

determining a path to a destination (Fig. 5A), *the path including one or more links* (1-6,6-5,5-4)

determining at least one alternate path having at least some of its one or more links differing from the link of the path (Link 1,2,3,4) *for one or more said links* (Col. 7, lines 20 – 33);

reserving resources for said at least one alternate path (Col. 2, lines 5 –9) ; Each node is provided with topology information relating to routing paths and restoration method is considered as the same function as described by the instant application.

rerouting traffic on said at least one alternate path in case of a link failure (Col. 2, lines 20 –21).

means for determining at least one alternate path for one or more said links (Col. 2, lines 32 – 35);

means for reserving resources for said at least one alternate path (Col. 2, lines 29 –31) ;

and means for rerouting traffic on said at least one alternate path in case of a link failure (Col. 2, lines 36 –37).

Azuma fails to clearly mention the method *of subsequent to reserving resources, detecting a link failure on the path*;

However, Vaman teaches a pre-plan method where it subsequently reserving resources detecting a link failure on the path (Col. 8, lines 14 – 42). Where the resource failures is considered as a link failure on the path.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to subsequently reserving resources detecting a link failure on the path in order to provide non-disrupted service (Col. 8, lines 30 –35).

Regarding claims 2 and 7, Azuma discloses *the method comprising: periodically updating said at least one alternate path and the means for periodically updating said at least one alternate path* (Col. 6, 21 –24). The system is updated anytime there is a change or a failure has occurred, which means periodically.

Regarding claims 4, 9, 13, 19,Azuma discloses a *method and means for rerouting user traffic substantially simultaneously to each link of said at least one alternate path* (Abstract). Each node determines alternative paths and then switches the service to the alternative paths simultaneously. Each node is considered as the means to reroute the traffic. The alternate path manager is component of the node (see fig. 6).

Regarding claim 11, Azuma discloses a node (Fig. 6) in a computer network connected by links, said node comprising:

a transit connection manager (TCM) adapted to

set up transit connections, an alternate route cross-connecting part (16) and cross-connection confirm part (18) that set up connection at the transit node (Col. 8, lines 15 – 26).

update routing tables, a topology updating part (20), which updates the topology information between bodes (Col. 8, lines 26 – 33). This is the same function as update routing tables.

route traffic; The actual cross –connection execute by the cross- connect part is considered as routing traffic (Col. 8, lines 20 –26).

Those features, which are incorporated in one node (Col. 3, lines 49 –551), mention above combine together implement the transit connection manager (TCM).

and an alternate path manager adapted to

determine at least one alternate path for each link, The alternate automatic path(28) pre-computes to find an alternate path (Col. 8, lines 36 – 37)is considered as determine an alternate path.

allocate connections on said at least one alternate path, The alternate setting part (32) allocate the connection to the alternate path (Col. 8, lines 47 – 54).

reserve resources on said at least one alternate path, The alternate path storing part (30) stores the computation result in an internal memory (Col. 8, lines 35 – 54). Which is the same function as reserve resources for the alternate path.

request to said TCM the rerouting of traffic on said at least one alternate path in case of a link failure (Col. 8, lines 48 –54). The failure identifying part (12) reads the result to the alternate path cross-connecting part (16). The alternate paths cross connecting, which is a component of the TCM as described above, routing the traffic to the alternate path.

Azuma fails to clearly mention the method *of subsequent to reserving resources, detecting a link failure on the path*;

However, Vaman teaches a pre-plan method where it subsequently reserving resources detecting a link failure on the path (Col. 8, lines 14 – 42). Where the resource failures is considered as a link failure on the path.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to subsequently reserving resources detecting a link failure on the path in order to provide non-disrupted service (Col. 8, lines 30 –35).

Regarding claim 17, Azuma discloses a method of non-disruptive packet switching in a network (Fig. 4A and 4b) having nodes (Fig. 6) interconnected with transmission trunks, said method comprising:

pre-selecting at least on alternate path for each trunk; Each node executes topology to pre-compute alternate path (Col. 7, lines 1 – 7) , is considered as pre-selecting an alternate path at each trunk.

reserving connections at each node to make said at least one alternate path; The alternate path storing part (30) stores the computation result in an internal memory (Col. 8, lines 35 – 54). Which is the same function as reserve resources for the alternate path.

reserving bandwidth resources to transmit packets on said at least one alternate path; *(Col. 2, lines 5 –9)* ; Each node is provided with topology information relating to routing paths and restoration method is considered as the same function as described by the instant application.

switching the path of a packet from a particular trunk, in response to failure of said particular trunk, to said at least one alternate path (Col. 2, lines 20 –21).

Azuma fails to clearly mention the method *of subsequent to reserving resources, detecting a link failure on the path*;

However, Vaman teaches a pre-plan method where it subsequently reserving resources detecting a link failure on the path (Col. 8, lines 14 – 42). Where the resource failures is considered as a link failure on the path.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to subsequently reserving resources detecting a link failure on the path in order to provide non-disrupted service (Col. 8, lines 30 –35).

Regarding claim 41, Azuma discloses all the limitation of claim 41, except *the method wherein the resources include bandwidth for passing traffic, and reserving resources for said at least one alternate path further comprises:*
sending a message to one or more nodes associated with the alternate path, the message to request the one or more nodes to reserve bandwidth for use by the alternate path.

However, Vaman teaches *the method wherein the resources include bandwidth for passing traffic, and reserving resources for said at least one alternate path further comprises:*
sending a message to one or more nodes associated with the alternate path, the message to request the one or more nodes to reserve bandwidth for use by the alternate path (Abstract).

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made combine the method teaching by Vaman into the method discloses by Azuma in order to provide non-disrupted service (Col. 8, lines 30 –35).

Regarding claims 42 –44, Azuma discloses all the limitations of claims 42 –44 except the method as in claims 1 and 11, further comprising:

sending one or more set-up request messages to one or more nodes associated with each of the one or more alternate paths, to allocate a connection along each of the one or more alternate paths;

maintaining the connection along each of the one or more alternate paths in a standby mode; and

in response to a link failure on the path, activating the connection along at least one of the one or more alternate paths.

However, Vaman teaches *the method as in claims 1 and 11, further comprising:*

sending one or more set-up request messages to one or more nodes associated with each of the one or more alternate paths, to allocate a connection along each of the one or more alternate paths;

maintaining the connection along each of the one or more alternate paths in a standby mode; and

in response to a link failure on the path, activating the connection along at least one of the one or more alternate paths (Fig. 7 and Fig. 8, Col. 12, lines 6 – 32).

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made combine the method teaching by Vaman into the method discloses by Azuma in order to provide non-disrupted service (Col. 8, lines 30 –35).

Claims 3,5, 8,10,12,18,14-16 and 20- 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Azuma in the view of Katzela et al. (US Patent 5,872,773, hereinafter Katz), and in further view of Vaman et al. (US Patent 6,011,780, hereinafter Vaman).

Regarding claims 3,8,12, 18,24 and 32 Azuma discloses *method and means for determining a plurality of altemate paths for each link* (Col. 4, lines 4 –6). But, Azuma does not expressly mention the plurality of alternate paths do not have any link in common.

However, Katz teaches a method to create at least two disjoint end-to-end paths between every pair of nodes (Col. 5, lines 40 –43). Which is the same function as described by the instant application.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to use disjoint paths to achieve reliability of transmission between a given source and destination (Col. 7, lines 36 – 38).

Regarding claims 5, 10,14,20,26 and 35, Azuma discloses all the limitations of claims 5 and 10 as applied to claims 1, 6,11 above, except the method and means for

reserving resources on said at least one alternate path for switching real-time connections first.

However, Katz teaches a method for verify resource availability for the requested QOS measures (Col. 3, lines 59 –60) and select the appropriate outgoing port for the connection (Col. 4, lines 17 –18). Quality of service distinguishes real-time connection and non real-time connection. It is also well know in the art real-time applications, due to their time sensitivity, are given priority over other applications when they are transmitted through communications networks.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method teaching by Katz into the method teaching by Azuma for the purposes of alternate traffic path and updating methods along with making real-time connection first, because of the time sensitivity issues involved with such connections.

Regarding claims 15 and 27, Azuma discloses a node (Fig. 6) in a computer network connected by links, said node comprising:

a transit connection manager (TCM) adapted to

set up transit connections, an alternate route cross-connecting part (16) and cross-connection confirm part (18) that set up connection at the transit node (Col. 8, lines 15 – 26).

update routing tables, a topology updating part (20), which updates the topology information between bodes (Col. 8, lines 26 – 33). This is the same function as update routing tables.

route traffic; The actual cross –connection execute by the cross- connect part is considered as routing traffic (Col. 8, lines 20 –26).

Those features, which are incorporated in one node (Col. 3, lines 49 –551), mention above combine together implement the transit connection manager (TCM).

and an alternate path manager adapted to

determine at least one alternate path for each link, The alternate automatic path(28) pre-computes to find an alternate path (Col. 8, lines 36 – 37)is considered as determine an alternate path.

allocate connections on said at least one alternate path, The alternate setting part (32) allocate the connection to the alternate path (Col. 8, lines 47 – 54).

reserve resources on said at least one alternate path, The alternate path storing part (30) stores the computation result in an internal memory (Col. 8, lines 35 – 54). Which is the same function as reserve resources for the alternate path.

request to said TCM the rerouting of traffic on said at least one alternate path in case of a link failure (Col. 8, lines 48 –54). The failure identifying part (12) reads the result to the alternate path cross-connecting part (16). The alternate paths cross connecting, which is a component of the TCM as described above, routing the traffic to the alternate path.

Azuma does not expressly mention *periodically re-determine at least one alternate path for each link in response to user traffic, network resources, and quality of service changes.*

However, Katz teaches a method where a network manager periodically computes routes based on traffic conditions (user traffic, resources, QOS) (Col. 4, lines 24 – 34). Which is the same function as described by the instant application.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to re-determine the alternate paths based on traffic condition for the purpose of providing available resources for the quality of service required (Col. 3, lines 55 – 61).

Azuma in combination with Katz fails to clearly mention the method *of subsequent to reserving resources, detecting a link failure on the path*;

However, Vaman teaches a pre-plan method where it subsequently reserving resources detecting a link failure on the path (Col. 8, lines 14 – 42). Where the resource failures is considered as a link failure on the path.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to subsequently reserving resources detecting a link failure on the path in order to provide non-disrupted service (Col. 8, lines 30 –35).

The recitation that packet switching, recites in claim 27, has not been given patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. Kropa v. Robie, 88 USPQ 478 (CCPA 1951).

Regarding claim 16, Azuma discloses the network manager as applied to claim 15 above. But, Azuma does not clearly discloses the alternate path manager adapted to periodically update said re-determined at least one alternate path after a predetermined period of time.

However, Katz teaches a method where a network manager periodically computes routes based on traffic conditions (user traffic, resources, QOS) (Col. 4, lines 24 – 34). Which is the same function as the alternate path manager adapt to periodically the re-determined path.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to re-determine the alternate paths based on traffic condition for the purpose of providing available resources for the quality of service required (Col. 3, lines 55 – 61).

Regarding claim 21, Azuma discloses a method of non-disruptive packet switching in a network (Fig. 4A and 4b) having nodes (Fig. 6) interconnected with transmission trunks, said method comprising:

pre-selecting at least on alternate path for each trunk; Each node executes topology to pre-compute alternate path (Col. 7, lines 1 – 7) , is considered as pre-selecting an alternate path at each trunk.

reserving connections at each node to make said at least one alternate path; The alternate path storing part (30) stores the computation result in an internal memory (Col. 8, lines 35 – 54). Which is the same function as reserve resources for the alternate path.

reserving bandwidth resources to transmit packets on said at least one alternate path; *(Col. 2, lines 5 –9)* ; Each node is provided with topology information relating to routing paths and restoration method is considered as the same function as described by the instant application.

switching the path of a packet from a particular trunk, in response to failure of said particular trunk, to said at least one alternate path (Col. 2, lines 20 –21).

Azuma does not expressly mention *periodically re-selecting a new alternate path for each link in response to user traffic, network resources, and quality of service changes.*

However, Katz teaches a method where a network manager periodically computes routes based on traffic conditions (user traffic, resources, QOS) to determine the switch in the route (Col. 4, lines 24 – 34). Which is the same function as described by the instant application.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to re-select a new the alternate paths based on traffic condition for the purpose of providing available resources for the quality of service required (Col. 3, lines 55 – 61).

Azuma in combination with Katz fails to clearly mention the method *of subsequent to reserving resources, detecting a link failure on the path*;

However, Vaman teaches a pre-plan method where it subsequently reserving resources detecting a link failure on the path (Col. 8, lines 14 – 42). Where the resource failures is considered as a link failure on the path.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to subsequently reserving resources detecting a link failure on the path in order to provide non-disrupted service (Col. 8, lines 30 –35).

Regarding claims 22, 28 and 31, Azuma discloses *the method comprising: periodically updating said re-selected at least one new pre-selected alternate path after*

a predetermined period of time (Col. 6, 21 –24). The system is updated anytime there is a change or a failure has occurred, which means periodically.

Regarding claim 23, Azuma discloses a node (Fig. 6) in a computer network connected by links, said node comprising:

a transit connection manager (TCM) adapted to

set up transit connections, an alternate route cross-connecting part (16) and cross-connection confirm part (18) that set up connection at the transit node (Col. 8, lines 15 – 26).

update routing tables, a topology updating part (20), which updates the topology information between bodes (Col. 8, lines 26 – 33). This is the same function as update routing tables.

route traffic; The actual cross –connection execute by the cross- connect part is considered as routing traffic (Col. 8, lines 20 –26).

Those features, which are incorporated in one node (Col. 3, lines 49 –551), mention above combine together implement the transit connection manager (TCM).

and an alternate path manager adapted to

determine at least one alternate path for each link, The alternate automatic path(28) pre-computes to find an alternate path (Col. 8, lines 36 – 37)is considered as determine an alternate path.

allocate connections on said at least one alternate path, The alternate setting part (32) allocate the connection to the alternate path (Col. 8, lines 47 – 54).

reserve resources on said at least one alternate path, The alternate path storing part (30) stores the computation result in an internal memory (Col. 8, lines 35 – 54). Which is the same function as reserve resources for the alternate path.

request to said TCM the rerouting of traffic on said at least one alternate path in case of a link failure (Col. 8, lines 48 –54). The failure identifying part (12) reads the result to the alternate path cross-connecting part (16). The alternate paths cross connecting, which is a component of the TCM as described above, routing the traffic to the alternate path.

Azuma in combination with Katz fails to clearly mention the method *of subsequent to reserving resources, detecting a link failure on the path*;

However, Vaman teaches a pre-plan method where it subsequently reserving resources detecting a link failure on the path (Col. 8, lines 14 – 42). Where the resource failures is considered as a link failure on the path.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to subsequently reserving resources detecting a link failure on the path in order to provide non-disrupted service (Col. 8, lines 30 –35).

The recitation that packet switching has not been given patentable weight because it has been held that a preamble is denied the effect of a limitation where the

claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951).

Regarding claim 25 Azuma discloses a *method and means for rerouting user traffic substantially simultaneously to each link of said at least one alternate path* (Abstract). Each node determines alternative paths and then switches the service to the alternative paths simultaneously. The alternate path manager is component of the node (see fig. 6).

Regarding claim 29, Azuma discloses *a method in a node in a communication network* (Fig. 5A, 5B) *having a plurality of access (1 and 4) and transit nodes* (2,4,3,5,6) *interconnected with transmission trunks, for, in case of failure or unavailability of an outbound trunk* (link between 5 and 6), *rerouting user traffic to an alternate path* (Fig. 5B, alternate route 2 to 4) the method comprising:

searching, pre-selecting, and storing at least one alternate path (805, 806) between origin node (803) and destination node (804) of each outbound trunk (800), said searching, pre-selecting and storing done in response to existing user traffic, network resources, and requested quality of service; Azuma discloses a method for pre-computing and finding an alternate path (Col. 8, lines 14-16), and storing the alternate path (Col. 8, lines 39 –41).

pre-allocating connections to said at least one alternate path; the cross –connect confirm part (Fig. 6, 18) pre-allocates the connection to the alternate path (Col. 8, lines 24 –26).

reserving resources for said at least one alternate path (Col. 2, lines 5 –9) ; Each node is provided with topology information relating to routing paths and restoration method is considered as the same function as described by the instant application.

activating said at least one alternate path. The restoration and selection part is considered as activate the alternate path (Col. 7, lines 13 –19).

rerouting traffic on said at least one alternate path in case of a link failure (Col. 2, lines 20 –21).

Azuma does not expressly mention *searching, pre-selecting and storing done in response to existing user traffic, network resources, and requested quality of service.*

However, Katz teaches a method where a network manager pre- computes routes based on traffic conditions (user traffic, resources, QOS) to determine the switch in the route (Col. 4, lines 24 – 34). Which is the same function as described by the instant application.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to re-select a new the alternate paths based on traffic condition for the purpose of providing available resources for the quality of service required (Col. 3, lines 55 – 61).

Azuma in combination with Katz fails to clearly mention the method *of reserving resources on at least one alternate path prior to failure or unavailability of outbound trunk, detecting a link failure on the path*;

However, Vaman teaches a pre-plan method where it subsequently reserving resources detecting a link failure on the path (Col. 8, lines 14 – 42). Where the resource failures is considered as a link failure on the path.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to subsequently reserving resources detecting a link failure on the path in order to provide non-disrupted service (Col. 8, lines 30 –35).

The recitation that packet switching has not been given patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951).

Regarding claim 30, Azuma does not expressly mention *updating one of pre-select at least one alternate path for each link in response to user traffic, network resources, and quality of service changes.*

However, Katz teaches a method where a network manager periodically update routes based on traffic conditions (user traffic, resources, QOS) (Col. 4, lines 24 – 34). Which is the same function as described by the instant application.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to re-determine the alternate paths based on traffic condition for the purpose of providing available resources for the quality of service required (Col. 3, lines 55 – 61).

Regarding claim 33, Azuma discloses the method of transmitting said user traffic over the network in at least one end-to-end connection established between access nodes (Fig. 5B and Col. 7, lines 20 –32).

Regarding claim 34, Azuma discloses *rerouting traffic on said at least one alternate path in case of a link failure* (Col. 2, lines 20 –21).

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

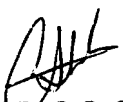
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dady Chery whose telephone number is 571-270-1207. The examiner can normally be reached on Monday - Thursday 8 am - 4 pm ESt.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dady Chery 10/24/2007



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